

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 59395WO005	FOR FURTHER ACTION	See item 4 below
International application No. PCT/US2004/000976	International filing date (<i>day/month/year</i>) 15 January 2004 (15.01.2004)	Priority date (<i>day/month/year</i>) 17 January 2003 (17.01.2003)]
International Patent Classification (IPC) or national classification and IPC ⁷ G02B 7/00, 5/30, 5/02		
Applicant 3M INNOVATIVE PROPERTIES COMPANY		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
 2. This REPORT consists of a total of 6 sheets, including this cover sheet.
- In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input checked="" type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 740 14 35	Date of issuance of this report 22 July 2005 (22.07.2005) Authorized officer <div style="text-align: center; font-weight: bold;">Agnes Wittmann-Regis</div> Telephone No. +41 22 338 89 70
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PATENT COOPERATION TREATY

REC'D 03 JUN 2004

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From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2004/000976

International filing date (day/month/year)
15.01.2004

Priority date (day/month/year)
17.01.2003

International Patent Classification (IPC) or both national classification and IPC
G02B7/00, G02B5/30, G02B5/02

Applicant
3M INNOVATIVE PROPERTIES COMPANY

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2004/000976

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2004/000976

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	6,8-10
	No: Claims	1-5,7
Inventive step (IS)	Yes: Claims	
	No: Claims	1-10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1: US-A-2 905 757

D2: US-A-2 242 567

D3: US-A-2 444 520

- 1.) The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1 is not new in the sense of Article 33(2) PCT.

- 1.1) The document **D1** discloses (the references in parentheses applying to this document) in figures 1, 2 and 3 with the corresponding description passages:

An optical film structure disposed on a light transmission surface of an illumination unit (1,2,3), for modulating light emitted from said illumination unit and projecting modulated light, comprising:

at least one optical film (24,29);

at least four optical film fixing parts (26) disposed at an outer peripheral portion of said optical film;

a film tension controlling member (27,28) attached at one of the ends thereof to each of said film fixing parts in such a fashion as to be capable of pulling said optical film under tension while maintaining flatness of said optical film; and

a film fixing frame 25 for fixing said optical film, connected to the other end of said film tension controlling member;

wherein said optical film, said film tension controlling member and said film fixing frame are integrated with one another and are constituted into one component.

The filter component shown in figure 2 of D1 present thus all the characteristics of the subject matter of claim 1.

- 1.2) The diffusion screen shown in figure 3 of D2 similarly shows an optical film (18) stretched by film tension controlling members (17) onto a frame 16.

D3 also shows a polarizing film 20 stretched on a frame 10 through spring hooks 16.

D2 and D3 also question the novelty of claim 1

- 2.) Dependent claims 2 to 10 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty or inventive step for the following reasons.

Claim 2: D2 includes a light diffusion film, D3 is a polarizer and the film of D1 could be regarded as a luminance improving film.

Claims 3 and 4: The film tensioning member 17 in D2 is an elastic rubber cord and in D3 tabs 16 are equivalent to springs.

Claim 5: The stacking of optical filters is a common practice in the art and is shown in figure 5 of D3.

Claims 6, 8, 9 and 10: Even if D1, D2 and D3 significantly predate the liquid crystal display technology, the claims in question merely define only the use of the film structure defined in claim 1 in different LCD applications without defining any further features specific to the filter assembly itself. In other words, the claims only define a known use for a filter in a LCD without specifying any features solving a new problem for the application in question. Hence the inventive activity appears questionable for these claims.

Claim 7: Both filters of D1 and D2 are used in combination with illumination units (1,2,3 in D1, implicit in D2 as the screen is used in transmission with a rear projector as an "illumination" unit).